

PROJECT NUMBER: 1503
PROJECT TITLE: Modified Smoking Materials
PROJECT LEADER: W. D. Winterson (Temporary)
PERIOD COVERED: July, 1988

I. FOAMED FILLER BINDER

- A. Objective: Develop process for applying a subjectively acceptable binder to the tobacco filler during making to improve cigarette quality.
- B. Results: Analysis of historical data from this program resulted in the development of a mathematical model which effectively represents the cigarette firmness results.
- C. Plans: Prepare and issue the final report for this program.

II. LOW DENSITY ROD - BINDER APPLICATION

- A. Objective: Produce precoated filler via the batch process to support the current product and process development efforts on the low density rod program. Develop a method of pre-applying binders to the tobacco in a manner that can be scaled up to commercial scale.
- B. Results: Process development on the continuous coating reel continued. Additional nozzles were installed in the cylinder, bringing the total to six. Satisfactory product was produced with 3% total pectin add-on using these six nozzles to spray a 4% pectin solution. Product with 6% add-on was produced by passing the filler through the coating reel twice. Attempts to produce 6% add-on in a single pass resulted in the formation of clumps of tobacco and pectin. Work is proceeding on developing a tracer for quantifying binder application and uniformity.
- C. Plans: Continue development of the coating reel, including studies on cylinder RPM, angle, and tobacco loading. Prepare coated filler for product and low density rod maker development work. Prepare coated filler for tracer studies and for pectin coating evaluations. Reinitiate study of alternate means of applying binder.

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